

Date: Mon, 25 Jan 93 19:09:39 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #107
To: Info-Hams

Info-Hams Digest Mon, 25 Jan 93 Volume 93 : Issue 107

Today's Topics:

144/400MHz mobile shopping
ANTENNA HANDBOOK
Any other W9RG DSP Filter users on the Net ?
Avantek distributors
DSP and The Future
ENDURANCE
Finding PL Tones and McDonald's
HTs at Disneyland
Marge Simpson's sister is a ham!
Posting Private Mail (Was: Re: Real hams?)
RACES Bulletin #258
Real NoCodes
What is feedpoint impedance of 5/8 wave ground plane?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 23 Jan 1993 18:08:17 EST
From: uunet.ca!xenitec!lemsys!clemon@uunet.uu.net
Subject: 144/400MHz mobile shopping
To: info-hams@ucsd.edu

Hello fellow hams! I am planning on buying a VHF/UHF mobile in the
spring and I would like to ask the net for your opinions AND experiences.
Please forward any experiences that you find relavent to me because an
actually USER of a particular radio telling me what they really like or
what really bugs them about their rig is probably worth 10 times as much as

glossy spew from the factory :-).

Specifically, I am looking for a high-power radio (50W range instead of 25W range) with 144/440 capability. Both bands are to be independent in listening, display, operation, and preferably CTCSS (decode). I am also seriously considering a remotable unit as this will start out in the house and this could prove useful. Minimum requirement is cross-banding to a repeater (ie. offset enabled). The units I am looking at are the Kenwood TM-741A (and possibly 732), (the one by Standard), and the Alinco DR600. I'm not crazy about the ICOM 2410H, but if someone can convince me, I may go for it.

The information that I am looking for are things such as which radios have DUAL CTCSS decoders (not just a single audio mute like many handhelds), separate decode/encode frequencies when in crossband mode, separate encode/decode frequencies when operating in the same band, reliability, ***INTERMOD*** (this is a BIGGY!) and general operating performance and convenience.

On a related note, can anyone tell me ANYTHING about this standard mobile. It's the one pictured grey with a green light up display in the mic and the control head in a recent magazine. Any information at all would be welcome. Standard seems to have high prices compared with everyone else. Is this due to quality or scarcity?

Thank you for any help you can offer.

73 de Craig.

--

Craig Lemon VE3XCL (Advanced) - Kitchener, Ontario. +1 519 741 0297
clemon@lemsys.UUCP clemon@lemsys@xenitec.on.ca | 1B Electrical Engineering
TCP/IP: ve3xcl@ve3xcl.ampr.org [44.135.84.51] | University of Waterloo
AX.25 Packet: ve3xcl@ve3euk.#SWON.ON.CAN.NA | Waterloo, Ontario, CANADA

Date: Sun, 24 Jan 1993 17:29:31 GMT
From: spool.mu.edu!uwm.edu!cs.utexas.edu!convex!constellation!
essex.ecn.uoknor.edu!usenet@decwrl.dec.com
Subject: ANTENNA HANDBOOK
To: info-hams@ucsd.edu

In article <1jr0e3INNbn@shelley.u.washington.edu> dbillon@stein.u.washington.edu
(Damien Billon) writes:

>

> I am looking for a good antenna handbook describing how to build HF, VHF,

>UHF... antennas. Any idea ?
>
>73, damien, FC1PLI, dbillon@u.washington.edu
>

Sure: The ARRL Antenna Handbook. Also the ARRL Antenna Compendium, although I haven't actually seen and used the latter. You might also very well find what you need in the ARRL Handbook, which is probably one of the best investments a ham can make. All are available directly through the ARRL, or through many dealers.

73 aussi, mon ami

```
+-----+
| Jud Ahern KC5RI           Bitnet: jahern@uokgcn.bitnet       |
| Geology & Geophysics      Internet: jahern@geohub.gcn.uoknor.edu |
| University of Oklahoma    "Opinions expressed here reflect the entire|
| Norman, OK 73019          University, in one convenient location." |
+-----+
```

Date: 24 Jan 93 13:17:25 EST
From: hellgate.utah.edu!cs.utexas.edu!swrinde!gatech!udel!darwin.sura.net!
bogus.sura.net!howland.reston.ans.net!usc!sdd.hp.com!ncr-sd!ncrcae!ncrhub2!ncrgw2!
psinntp!arrrl.org@@dog.ee.lbl.gov
Subject: Any other W9RG DSP Filter users on the Net ?
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, wvanhorn@magnus.acs.ohio-state.edu (William E Van Horne) writes:

> 3. The only real problem I had was mounting the LED bar display
> on the front panel. The suggested way of bending the legs of
> the supplied socket was a disaster, and I can't see that it
> would ever be anything but a terrible kluge. I made a sub-chassis
> out of a small piece of perf board with 0.1" perforations. The
> leads from the display exactly fit the holes. After putting the
> display chip on the perf board, the leads barely project through
> the under side, but are long enough to allow one to wire-wrap or
> solder onto them using fine wire. (I used #30 teflon wire-wrap
> type). I twisted the ten pairs of wires together into a kind
> of cable and soldered them into the holes in the main p.c. board.
> Then I mounted the sub-chassis behind the front panel on 1/4"
> spacers. That way, its front surface is flush with the front
> panel through a rectangular hole that I cut with a nibbler tool.
>
> This was not the neatest way of doing the job. A friend who also
> built one of these did a better job: he mounted a standard DIP

```
> socket in the holes on the p.c. board, then made up a 20-pin header
> with a length of 20-conductor computer type flat cable to run to the
> LED's which he mounted on the front panel. That is doing it the
> right way, but mine worked ok.
```

An even easier way is to use a standard 20-pin solder-type IC socket, and bend one row of pins (pins 1-10) outward at a 90-degree angle. Install the socket in the board, then solder bus wire (or clipped resistor leads) to connect pins 11-20 to the holes in the board. Here's a side view of the result:

```
socket --> |  -- | --\
for  ---> |  |   \ <- bus wire
LEDs ---> |__|_   \
              =|====|===== <- PC board
```

Note: Most low-cost solder-type IC sockets have flat pins. They may face along the socket or toward the end. In other words, there are sockets that allow the pins to easily be bent to the side, and there are sockets that don't. Check first!

```
-----
Jon Bloom, KE3Z                | jbloom@arrl.org
American Radio Relay League | Justice is being allowed to do whatever
225 Main St.                  | I like. Injustice is whatever prevents
Newington, CT 06111          | my doing so. -- Samuel Johnson
```

```
-----
Date: 25 Jan 93 18:52:52 GMT
From: ogicse!usenet.coe.montana.edu!saimiri.primate.wisc.edu!sdd.hp.com!
hpscit.sc.hp.com!albert@network.UCSD.EDU
Subject: Avantek distributors
To: info-hams@ucsd.edu
```

Rob Ballantyne (ballanty@cs.sfu.ca) wrote:

```
:
: Please help!
:
: I can't seem to find the local (or any for that matter) supplier of
: Avantek parts. Could someone please send me the addresses of the
: Canadian (preferably west-coast, if they have one) supplier of Avantek
: parts.
```

Call your local Hewlett Packard sales office.

Albert Alcorn
Hewlett Packard

Semiconductor Systems Center
Digital IC Test products
(408) 553-7482
albert@sc.hp.com

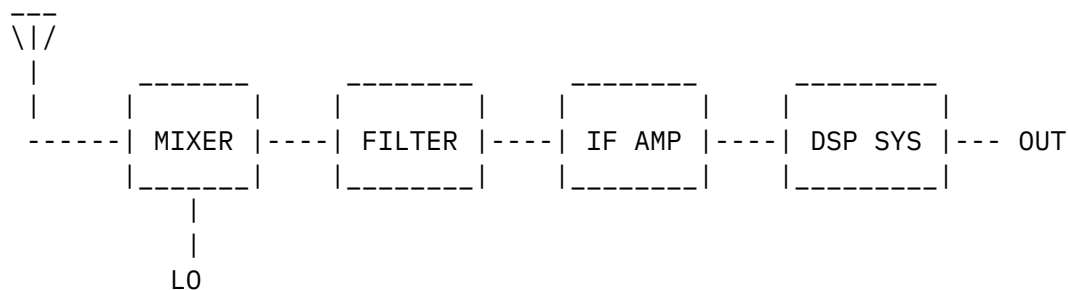
Date: 24 Jan 93 17:38:58 GMT
From: agate!spool.mu.edu!sdd.hp.com!ncr-sd!ncrcae!ncrhub2!ncrgw2!psinntp!
arrl.org@ucbvax.berkeley.edu
Subject: DSP and The Future
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, regnad@hal.gnu.ai.mit.edu (Paul Prescott) writes:
>

>Ah ha! So other people *have* had the same idea I got about 7 or 8 years
>ago. :) That is, apply DSP to the IF of a standard receiver to witness
>the greatest advance in performance since the vacuum diode replaced the
>coherer. :) The best possible scenario I can think of would be a 455 KHz
>add on DSP box. This would make any receiver with a decent front end
>and a 455 KHz IF nothing short of an absolute marvel. This is one solid
>state device I would not mind being able to hang on my vacuum tube radios.

There are a couple of complicating factors here. One, as you say, is that adding DSP to the IF may not change the basic strong-signal performance of the radio. But more than just "a decent front end" is involved. The strong-signal performance is determined by the analog circuitry in the front end, filters and IF stages. So adding the DSP to an existing radio only makes sense if that radio has good *overall* RF performance to begin with.

Consider the following basic receiver design:



There are two basic dynamic-range considerations here: 1) response to strong signals that are rejected by the roofing filter; 2) response to signals that are *not* rejected by the filter. For example, if the filter is 3 kHz wide, a signal separated from the receive frequency by 10 kHz is well rejected by the filter. Any spurious-

response problems (nonlinearities) that cause this signal to block or generate problematic IMD products will have to occur in the front end or the filter itself; the IF amp and detector aren't involved. But if the signal is only 2 kHz from the receive frequency, the IF amp and the DSP subsystem can respond unfavorably to the strong signal. Thus, the ability of the DSP system to narrow the *system* bandwidth down to, say 100 Hz, doesn't alter the fact that strong signals that appear in the IF can cause problems.

In an analog receiver, the use of AGC mitigates this problem. That is, the strength of the signal appearing in the IF is measured and used to reduce the gain of the front end (and the IF amps as well, often) so that the strength of the signal applied to the IF stages is controlled. This works because the entire signal that comes through the filter is used to derive the AGC control signal.(*) If you were to derive the AGC after passing the signal through a narrow filter in the DSP subsystem (or in an analog subsystem, for that matter), it wouldn't control those signals that appear outside the narrow filter but inside the roofing filter. Thus a strong signal of that sort wouldn't cause the AGC to reduce the front-end gain, and the IF stages might overload.

On the other hand, if you allowed the AGC to respond to all of the signals in the IF, but allowed the DSP to filter out a 500-Hz wide segment of the IF, strong signals outside that segment would "pump" the AGC, causing the desired signal to fluctuate in amplitude. Of course, the DSP can compensate for this, but only up to a point.

All of this is not to say that there aren't some real benefits to having the DSP at IF instead of AF. One such benefit is that it becomes much easier to demodulate many different types of signals-- "it's only software." But present DSP technology is not a panacea, and sticking a DSP subsystem on the IF of a Knight Star Roamer(**) is not going to make it into an FT-1000.

(*) There are, of course, more complex receiver designs that use multiple IFs and multiple filter bandwidths. That only complicates the analysis; it doesn't change the fundamental point.

(**) The other OFs already know this, but for you kids a Star Roamer was a cheap kit shortwave receiver. It received signals, and that's about the best one could say for it.

Jon Bloom, KE3Z | jbbloom@arrl.org
American Radio Relay League | Justice is being allowed to do whatever
225 Main St. | I like. Injustice is whatever prevents
Newington, CT 06111 | my doing so. -- Samuel Johnson

Date: 25 Jan 93 19:14:11 GMT
From: ogicse!emory!swrinde!zaphod.mps.ohio-state.edu!rphroy!link.ph.gmr.com!
vbreault@network.UCSD.EDU
Subject: ENDURANCE
To: info-hams@ucsd.edu

In article <9301221326.aa13074@COR5.PICA.ARMY.MIL> jkeller@pica.army.mil (Jerome Keller, PPD) writes:

A few days ago, Joe Mastroianni, AA6YD, invited all of us here in net-land to partake of his short story "ENDURANCE" in the Feb issue of QST. This message of congratulations is for Joe....

I, too, want to congratulate Joe on his fine short story. While not a sci-fi enthusiast, I am a fan of Joe's writing and have saved many of his posts.

Joe told me that there is another story in the works that has been postponed until a summer issue.

I'll be waiting to read it.

--

-val-

Val Breault - GM Research - vbreault@gmr.com - N8OEF
Instrumentation dept., 30500 Mound Rd., Warren, MI 48090-9055
The opinions expressed by the author do not necessarily reflect
those of GMR or those of the General Motors Corporation.

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 \ /

Date: 25 Jan 93 15:18:42 GMT
From: ogicse!uwm.edu!ux1.cso.uiuc.edu!miltf@network.UCSD.EDU
Subject: Finding PL Tones and McDonald's
To: info-hams@ucsd.edu

johnr@mik.uky.edu (John S. Roberts, Jr.) writes:

>I was just wondering how one would find out what PL tone a particular radio
>setup was using. I have noticed that the local McDonald's drive thru window
>radios do not suffer from intermod like mine does on the same frequency as I go
>through their drive thru. I am assuming they are using some sort of PL tone or
>CTCSS (not really sure what the difference is). I was wondering how you
>might figure out what frequency the PL tone is?

McDonalds (and many other fast food operations) use 154.57 and 154.6, and probably one or two others for drive-up orders. I am licensed on 154.57 and

find several combinations of systems in use. Some use PL, some do not. Some use a 30 mhz range frequency input, some do not. If I must use my system near one of the McDonalds systems, some hear me, some do not. In a few cases, my transmission just cuts out their reception. I try to avoid use of my system when I am near one of those in operation, but it is not always possible to avoid it. Unfortunately, they are on continuous, so there is no time to share the channel. You will need to check the McDonalds in your area to see which system they are using. I do not use PL.

Milt

Date: 25 Jan 93 15:06:01 GMT
From: ogicse!emory!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
Subject: HTs at Disneyland
To: info-hams@ucsd.edu

In article <1993Jan23.070314.20547@kumr.lns.com> pozar@kumr.lns.com (Tim Pozar) writes:

>
> FYI...
> To the Secret Service's credit, when Mandella and Yeslin came to town,
>(San Francisco) they did coordinate freqs with the local Broadcasters Freq
>committee.

I'm surprised. In Atlanta they have their own permanent repeater, and their radios generally don't use RPU frequencies anyway. The normally operate in the 470 MHz range.

Gary

--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary
534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | |

Date: 24 Jan 93 15:09:15 GMT
From: opel!slc1!vk2bea!michael@uunet.uu.net
Subject: Marge Simpson's sister is a ham!
To: info-hams@ucsd.edu

In article <1993Jan22.143403.16112@crd.ge.com> mallick@crd.ge.com writes:
>I don't know how many of you caught "The Simpsons" last night,
>but during one scene when Marge's cigarette-puffing, Gorgon-like

[illegible]

```
--
Michael Katzmann                > Broadcast Sports Technology Inc.
~~~~~                          < Crofton, Maryland. U.S.A
Amateur Radio Stations:         >
NV3Z / VK2BEA / G4NYV / AAR3VK < opel!vk2bea!michael@uunet.uu.net
```

If you were a net.veteran, you would have noticed that the message posted by our friend Kebbin was in fact a private e-mail message which I had sent

to him.

Now, I *could* flame Kebbin for posting private e-mail, but that's okay, because I'm sure everyone else pretty much thinks of him as low-life scum for doing it anyway (not to mention that I could care less, since I stand by each word I said.)

However, there are two things to remember:

1. Private e-mail may or may not be sent from the same account which I post to USENET with.
2. You're only seeing one side of the posting. What you're not seeing are the particularly vulgar messages which Kebbin is in fact sending to other people on this end. And, naturally, its always easy to condemn based upon a single-sided view.

MD

--

-- Michael P. Daignan, KD1HZ	-----
-- Domain: mpd@anomaly.sbs.com	- I'm not a bigot, -
-- UUCP: ...!uunet!anomaly!mpd	- I hate everyone... -
-- Telebit: +1 401 455 0347	-----

Date: Sat, 23 Jan 1993 18:55:41 -0700
From: sun-barr!cs.utexas.edu!sdd.hp.com!swrinde!gatech!destroyer!cs.ubc.ca!
unixg.ubc.ca!kakwa.ucs.ualberta.ca!ersys!ve6mgs!rec-radio-info@ames.arpa
Subject: RACES Bulletin #258
To: info-hams@ucsd.edu

BID: \$RACESBUL.258

TO: ALL EMERGENCY MANAGEMENT AGENCIES VIA AMATEUR RADIO
INFO: ALL RACES OPERATORS IN CA (ALLCA: OFFICIAL)
ALL AMATEURS U.S. (@ USA: INFORMATION)
FROM: CA STATE OFFICE OF EMERGENCY SERVICES (W6HIR @ WA6NWE.CA)
2800 Meadowview Rd., Sacramento, CA 95832 (916)262-1600
Landline BBS open to all: (916) 262-1657
RACESBUL.258 DATE: Jan. 25, 1993
SUBJECT: MGT - The importance of planning - part 2/2

Once the communications plan is developed, it must be given the widest possible dissemination and tested for effectiveness through drills and exercises. If it does not work well then it must be either modified, or the users must be better trained and drilled, or a combination of both must occur.

It has been my experience that following most major incidents there is a need to make adjustments to standard operating procedures. Sometimes this means updating basic data or modifying actual procedures. This is why SOP's should not be buried within or threaded throughout any plan. A plan should be the basic foundation and framework. The SOP's, operation manual, or similar documents are the furnishings attached to a plan. This is why well written plans and SOP's require frequent review, exercising, and updating. Operations frequently fail or are considerably less than optimum if this is not done. SOP's are best written by people who have experience in carrying them out.

A final word to tease the semanticists. Planning is planning, right? Then what, pray tell, is preplanning? Is this where one contemplates to plan? Why not drop the "pre" and get right to it!

---Stanly E. Harter, KH6GBX

EOM

RACES Bulletins are archived on the Internet at ucsd.edu in hamradio/races and can be retrieved using FTP.

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- Postings to rec.radio.info: rec-radio-info@ve6mgs.ampr.ab.ca
- rec.radio.info administrivia: rec-radio-request@ve6mgs.ampr.ab.ca

Date: Sun, 24 Jan 1993 17:04:16 GMT
From: spool.mu.edu!mixcom.com!kevin.jessup@decwrl.dec.com
Subject: Real NoCodes
To: info-hams@ucsd.edu

I am anxiously awaiting my "no code" tech license to arrive.

I consider it my FIRST STEP into HAM radio. Since I have a 50+ hour a week job, attend night classes and also have a family, I opted for the no code rather than the novice or general. I just do not have the time at the moment to study the code.

I've also wanted a reliable and fun means of mobile communication. I've heard that CB is frequented by many people that you'd rather not talk to. I thought HAM radio was supposed to be different. Tell me Mr. Deignan, did you just move up from CB or have you always been this way??

There seems to be a fair amount of "no-code" bashing around here lately. I'd just like to say to any other aspiring HAMS out there that this is the exception and not the rule (at least in my experience).

There are many general class and higher HAMS here where I work and in the surrounding area (Milwaukee) and I've found them to be very helpful. Most do not have Deignan's attitude and are happy to help anyone with a desire to learn more about HAM radio.

So far the only "flames" I've received regarding any HAM radio questions I've had have come via Email. I think such flaming is more a phenomenon of INTERNET rather than HAM radio in general. You'll find such attitude problems in any USENET conference. Most of them you just have to ignore.

--
Kevin Jessup, kevin.jessup@mixcom.mixcom.com

```
"Friends don't let friends run DOS."  
-- Microware
```

Date: Mon, 25 Jan 1993 03:09:30 GMT
From: munnari.oz.au!sgiblab!zaphod.mps.ohio-state.edu!howland.reston.ans.net!
bogus.sura.net!udel!gvls1!gvlf9-q!rossi@network.UCSD.EDU
Subject: What is feedpoint impedance of 5/8 wave ground plane?
To: info-hams@ucsd.edu

I remember reading somewhere that the feedpoint of a 5/8 wave ground plane was something like 50 ohms + some amount of capacitance reactance. I forget the amount. Anybody know? The few antenna books I have don't say much about 5/8 wave antennas.

Pete Rossi - WA3NNA rossi@VFL.Paramax.COM

Paramax Systems Corporation - a Unisys Company
Electronic Systems - Valley Forge Engineering Center - Paoli, Pennsylvania

Date: Mon, 25 Jan 1993 03:56:27 GMT
From: anomaly.sbs.com!kd1hz@uunet.uu.net
To: info-hams@ucsd.edu

References <kd1hz.1@anomaly.sbs.com>, <ZZjls*Ru0@lemsys.UUCP>,
<C1E2nu.GA3@anomaly.sbs.com>
Subject : Re: Real NoCodes

Well, I should know better than to followup to a message posted from a site which can't even get its domain name straight, but here goes...

clemon@lemsys.UUCP (Craig Lemon VE3XCL) writes:

^^^^^

There is no such thing as a ".UUCP" domain, BTW.

> No sir, you are a bigot. And great offense will be, and has been
> taken from your statements.

You forgot to ask me if I care.

> No-code licensing is not the same in Canada as
> it is in the States. I have full radio-theory qualifications but no code,
> because I have better things to do than study code (like go to school).

That's certainly a step up from the "memorized-the-question-pool-then-forget-
everything-you-read" approach which many people are taking here.

> At least you've
> decided to come out from behind your "system administrator" account.

I've never posted a message to this newsgroup using a "System
Administrator" account. I can't control what other people do with
private e-mail I send to them from one of my many accounts, though.

MD

--

-- Michael P. Daignan, KD1HZ
-- Domain: mpd@anomaly.sbs.com
-- UUCP: ...!uunet!anomaly!mpd
-- Telebit: +1 401 455 0347

- I'm not a bigot, -
- I hate everyone... -

End of Info-Hams Digest V93 #107
